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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/594,456	06/15/2000	Shawn D. Abbott	30074.27USI1	8669

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EXAMINER	
JACKSON, JENISE E	
ART UNIT	**PAPER NUMBER**
2131	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/594,456	ABBOTT ET AL.	
	Examiner	Art Unit	
	Jenise E. Jackson	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 January 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *20-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *20-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 20-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benson(EP 0936530) in view of Gabrielle.

3. As per claim 20, Benson discloses a compact personal token(i.e. dongle, 1101)(see col. 24, lines 8-10), a host processing device(vcs, virtual smartcard server)(see col. 23, lines 20-21, see fig. 1, pg. 15) an operating system; a smartcard processor having a smartcard processor-compliant interface for communicating according to a smartcard input and output protocol, and interface processor(see col. 6, lines 38-45, 56-58, col. 7, lines 1-5), a smartcard processor-compliant interface, the interface processor implementing a translation module for interpreting messages into smartcard processor-compliant messages and for interpreting smartcard processor compliant messages(see col. 4, lines 4-23, col. 24, lines 8-16).

4. Benson does not disclose an USB-compliant interface; however, Gabrielle teaches an USB-compliant interface, such as a USB port. It would have been Obvious to one of ordinary skill in the art to include the USB-compliant interface of Gabrielle in the Benson system, the motivation to have a USB-compliant interface is that USB can transfer data quicker than a serial or parallel port, and is "hot swappable" plug-and-play, allowing consumers to alter the configuration of their computers without using ports specific to any one peripheral; up to 127

devices can be daisy-chained using USB ports, including parallel device that can be link to a USB port via a dongle device.

5. As per claim 21, Benson discloses the interface processor emulates a smartcard reader to the smartcard processor(see col. 3, lines 22-26, col. 4, lines 14-23, col. 6, lines 38-41).

6. As per claim 22, Benson discloses wherein the host processing device includes a virtual smartcard reader in communication with the operating system(see col. 4, lines 11-16), the virtual smartcard reader for emulating a smartcard reader communicatively coupled to the host processing device(see col. 6, lines 38-44) and including a communication module for packaging messages for transmission to the personal token via the USB-compliant interface according to a first protocol and for unpackaging messages received from the personal token via the USB-compliant interface according to a first protocol and for unpackaging messages received from the personal token via the USB-complaint interface according to the first protocol(see col. 24, lines 8-16); and wherein the interface processor translation module unpackages messages from the host processing device according to the first protocol and packages messages destined for the host processing device according to the first protocol(see col. 24, lines 48-58).

7. As per claim 23, Benson discloses wherein the virtual smartcard reader includes a bootup module for responding to an operating system bootup procedure with an indication that a smartcard reader is communicatively coupled to the host processor(see col. 24, lines 42-47).

8. As per claims 24, 28, Benson inherently discloses wherein the virtual smartcard reader includes an answer-to-reset module for providing an ATR message to the operating system in response to a reset message, because Benson discloses a smart card(see col. 7, lines 49-51, col. 24, lines 42-47). The Examiner asserts that smartcards have answer-to-reset module.

9. As per claims 25, 29, wherein the virtual smart card reader includes a reporting module for receiving and reporting the insertion of the personal token(see col. 24, lines 8-14), communicatively coupled to the host processor and the removal of the personal token as a removal of a smart card from a smart card reader(see col. 13, lines 41-53, col. 23, lines 35-37, col. 24, lines 18-22).

10. As per claims 26, 30, 35, Benson inherently discloses wherein the virtual smart card reader includes a protocol selection module for receiving a protocol type selection command from the operating system and providing a PTS response message to the operating system, because Benson discloses that the virtual smart card can be inserted into different machines(see col. 3, lines 30-37). Therefore, the Examiner asserts that since Benson discloses that the virtual smart card can be inserted into different machines, that there is a protocol selection module.

11. As per claim 27, Benson discloses a processor, a memory, communicatively coupled to the processor, the memory storing processor operation commands implementing an operating system; and a virtual smartcard reader module stored in the memory and in communication with the operating system, for emulating at least one smartcard reader to the operating system(see col. 4, lines 11-16, col. 6, lines 38-44), the virtual smartcard reader module include a communication module for packaging smartcard compliant commands for transmission to a personal token communicatively coupled to the host processor via a USB-compliant interface and for unpackaging smartcard-compliant responses received from the personal token(see col. 24, lines 8-16); wherein the virtual smartcard reader includes a bootup module for responding to an operating system bootup procedure with an indication that a smartcard reader is communicatively coupled to the host processor(see col. 24, lines 42-47).

12. As per claim 31, Benson discloses accepting a message including a smartcard reader command selected from a smartcard reader command selected from a smartcard reader command set from a host computer operating system in a virtual smartcard reader(see col. 24, lines 8-16); packaging the message for transmission via a USB-compliant interface according a first message transfer protocol; transmitting the packaged message to a personal key communicatively coupled to the USB-compliant interface; receiving the packaged message in the personal key, unpackaging the message in the personal key to recover the smartcard reader command; and translating the smartcard reader command into a smartcard command within the personal key; and providing the smartcard command to the smartcard processor(see col. 4, lines 4-23, col. 24, lines 8-16, col. 6, lines 38-45, 56-58, col. 7, lines 1-5).

13. As per claim 32, Benson discloses accepting a smartcard response from the smartcard processor; translating the smartcard response into a smartcard reader response; packaging the smartcard reader response for transmission to the host processor via the USB-compliant interface; transmitting the packaged message from the personal key to the host processor(see col. 4, lines 12-23, col. 7, lines 49-56); receiving the packaged message from the personal key to the host processor, receiving the packaged message in the host computer; unpackaging the smartcard reader response; and providing the smartcard reader response to the host processor operating system(see col. 6, lines 38-45, 56-58, col. 7, lines 1-5, col. 24, lines 8-16).

14. As per claim 33, Benson discloses accepting a startup query from the host computer operating system in the virtual smartcard reader, and providing an indication that a smartcard reader is communicatively coupled to the host computer operating system(see col. 9, lines 15-23, col. 24, lines 42-47).

15. As per claim 34, Benson discloses receiving an indication that the personal key has been communicatively coupled to the USB-compliant interface(see col. 1, lines 35-42), reporting the indication that the personal key is communicatively coupled to the USB-compliant interface to the host processor operating system as the insertion of a smartcard; receiving an indication that the personal key has been communicatively decoupled from the USB-compliant interface; and reporting the indication that the personal key has been communicatively decoupled from the USB-compliant interface to the host processor operating system as the removal of the smartcard(see col. 17, lines 36-57, col. 21, lines 3-24).

Response to Applicant

16. The Applicant states that Benson does not disclose a translation module for interpreting USB-compliant messages into smartcard processor-compliant messages and for interpreting smartcard processor-compliant messages into USB-compliant messages. The Examiner disagrees with the Applicant. In the specification, it discloses packaged messages are unpacked by the translation module in the personal key. Also, the specification discloses messages transmitted by the smartcard processor to the host computer are packaged by the translation module and unpackaged by the communication module before being provided to the operating system(see pg. 11). On page 10, of the specification discloses the communication module packages messages intended for the personal key for transmission via the USB-compliant interface. Therefore, the Benson discloses a translation module, because Benson discloses communication between the virtual smart card reader and a dongle[0014]. The virtual smartcard

is a copy-protected program that executes only if permitted by the dongle. If the end-user attaches the dongle to the machine, then the virtual smartcard executes[0014].

17. The Applicant states that Benson does not disclose translating the smartcard reader command into a smartcard command within the personal key. The Examiner disagrees with the Applicant. Benson discloses the virtual smartcard reader communicates with the dongle. The virtual smartcard executes only if permitted by the dongle(i.e. personal key).

18. The Applicant states that Benson does not disclose a virtual smartcard reader includes a bootup module for responding to an operating system bootup procedure with an indication that a smartcard reader is communicatively coupled to the host processor. The Examiner disagrees with the Applicant. Benson discloses the end-user attaches the dongle and boots the virtual smartcard program. The virtual smartcard program does not operate unless the virtual smartcard program can validate that the dongle is present. The state of the virtual smartcard is in-use after the virtual smartcard detects the dongle[0107].

Final Action

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenise E. Jackson whose telephone number is (571) 272-3791. The examiner can normally be reached on M-Th (6:00 a.m. - 3:30 p.m.) alternate Friday's.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

March 30, 2007

AYAZ SHEIKH
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